SONY

3-866-296-11(2)

Remote Commander

Operating Instructions

RM-PP402

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Precautions

On safety
Should any solid object or liquid fall into the cabinet, unplug the receiver and have it checked by qualified personnel before operating it any further.

On operation
Before connecting other components, be sure to turn off and unplug the receiver.

On cleaning
Clean the cabinet, panel and controls with a soft cloth slightly moistened with a mild detergent solution. Do not use any type of abrasive pad, scouring powder or solvent such as alcohol or benzine.

If you have any question or problem concerning your receiver, please consult your nearest Sony dealer.

About This Manual

The instructions in this manual are for model RM-PP402. Check your model number by looking at the lower right corner of the front side.

Conventions
The following icon is used in this manual:

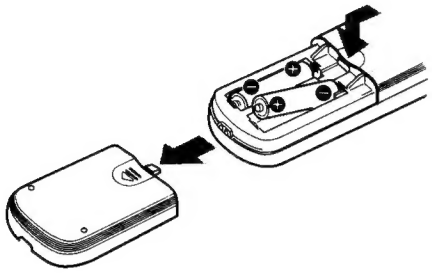
Indicates hints and tips for making the task easier.

Before You Use Your Remote

Check that you received the following item with the remote:
R6 (size-AA) batteries (2)

Inserting batteries into the remote

Insert two R6 (size-AA) batteries with the + and – properly oriented in the battery compartment. When using the remote, point it at the remote sensor ■ on the receiver.



When to replace batteries

Under normal conditions, the batteries should last for about 6 months. When the remote no longer operates the receiver, replace both batteries with new ones.

Notes

- Do not leave the remote in an extremely hot or humid place.
- Do not use a new battery with an old one.
- Do not expose the remote sensor of the receiver to direct sunlight or lighting apparatuses. Doing so may cause a malfunction.
- If you don't use the remote for an extended period of time, remove the batteries to avoid possible damage from battery leakage and corrosion.

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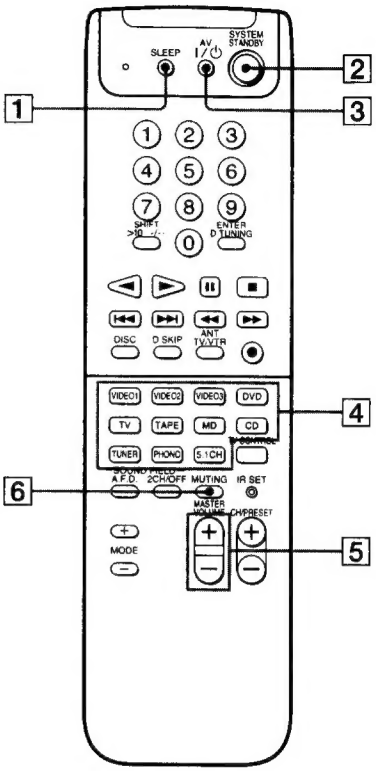
Location of Parts and Basic Remote Operations

This chapter provides information on the location of buttons and how to use them to perform basic operations.



1 SLEEP button

Press repeatedly to activate the sleep function and the duration which the receiver turns off automatically.

2 SYSTEM STANDBY switch

Press to turn off the receiver and other Sony audio/video components at the same time.

3 AV I/⏻ switch

Press to turn the audio and video components on or off.

4 Function buttons

Press one of the buttons to select the component you want to use. When you press a button, the receiver turns on.

To select	Press
VCR	VIDEO1 (VCR mode 3), VIDEO2 (VCR mode 1), or VIDEO3 (VCR mode 2)[a]
DVD	DVD
TV	TV
Tape deck	TAPE
MD deck	MD
CD player	CD
Built-in tuner	TUNER
Turntable	PHONO
the component connected to the 5.1CH INPUT jacks on the receiver	5.1CH

a) Sony VCRs become operable when you press the VIDEO1, 2, or 3 button. These buttons correspond to VHS, Beta, and 8mm, respectively.

To select an LD player or satellite tuner (etc.) press the button for the function to which you connected the component.

See the table on page 10 for information on the buttons you can use to control each component.

Note that the function buttons are factory-set as described in the table above. If you want to change the factory setting of the buttons to match your particular components, do the procedure "Changing the Factory Settings of a Function Button" on page 12.

Notes

- Before you turn on the receiver, make sure that you have turned the MASTER VOLUME control on the receiver to the leftmost position to avoid damaging your speakers.
- After you have selected VCR or DVD player, turn on the TV and set the TV's video input to match the component you selected.

5 MASTER VOLUME +/– buttons

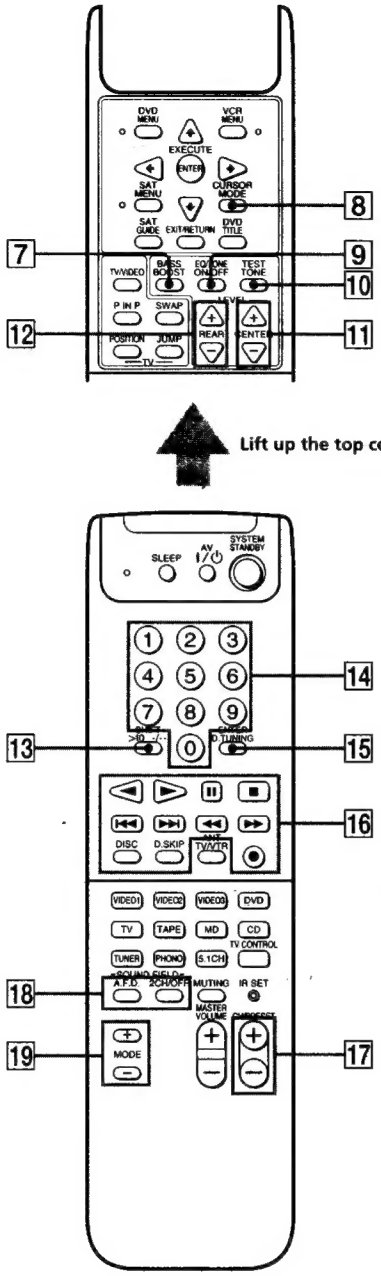
Press to adjust the volume level of all speakers at the same time.

If you have pressed the TV CONTROL button:
Press to adjust the volume level of the TV speakers.

6 MUTING button

Press to mute the sound. The MUTING indicator on the receiver lights up when the sound is muted.

If you have pressed the TV CONTROL button:
Press to mute the sound from the TV.



7 BASS BOOST button

Press to increase the bass of the front speakers. The BASS BOOST indicator on the receiver lights up when the function is turned on.

8 CURSOR MODE button

Press repeatedly to select a cursor mode, SURROUND, BASS/TREBLE (EQ), etc. The indicator for the selected cursor mode lights up on the receiver.

9 EQ/TONE ON/OFF button

Press to turn the tone effect on or off. The TONE indicator on the receiver lights up while the tone effect is turned on.

Note that if you have adjusted the tone using the CURSOR MODE button and cursor buttons, the adjusted tone will be produced whenever you turn on the tone effect.

10 TEST TONE button

Press to output a test tone.

11 LEVEL CENTER +/– buttons

Press to adjust the volume level of the center speaker.

12 LEVEL REAR +/– buttons

Press to adjust the volume level of the rear speakers.

13 SHIFT >10 -/-- button

If you have selected tuner:

Press repeatedly to select a memory page for presetting radio stations or tuning to preset stations.

If you selected VCR, TV, LD player, tape deck, MD deck, or CD player:

Press before inputting a channel or track number of eleven or higher.

14 Numeric buttons (1 to 0)
Inputs the corresponding numeric value. When inputting a channel, disc, or track number, 0 selects 10.

15 ENTER D.TUNING button

If you have selected tuner:
Press to enter direct tuning mode.

If you have selected VCR, DVD player, LD player, TV, satellite tuner, tape deck, MD deck, or CD player:
After selecting a channel, disc, or track using the numeric buttons, press to enter the value.

16 Tape/disc operation buttons
The following table describes the component operated by each button and the function of the buttons.

Button(s)	Component(s)	Function
◄	Tape deck	Starts play on the reverse side of the cassette
►	VCR, DVD player, LD player, tape deck, MD deck, CD player, DAT deck	Starts play on the front side of the cassette
II	VCR, DVD player, LD player, tape deck, MD deck, CD player, DAT deck	Pauses play or recording or starts recording when the component is in recording standby
■	VCR, DVD player, LD player, tape deck, MD deck, CD player, DAT deck	Stops play
⏮ / ⏭	VCR, DVD player, LD player, MD deck, CD player, DAT deck	Skips tracks
◄◄ / ►►	VCR, LD player, tape deck, MD deck, DAT deck	Fastwinds or rewinds
	DVD player, CD player	Searches tracks in the forward or backward direction
●	tape deck, MD deck, DAT deck	Sets the tape deck in recording standby
● + ► (if pressed together)	VCR, Tape deck, DAT deck	Starts recording. You can press ◄ for the tape deck or DAT deck instead of ►.
DISC	CD player	Selects a disc (CD player with a multi-disc changer only)
D.SKIP	CD player	Skips a disc (CD player with a multi-disc changer only)

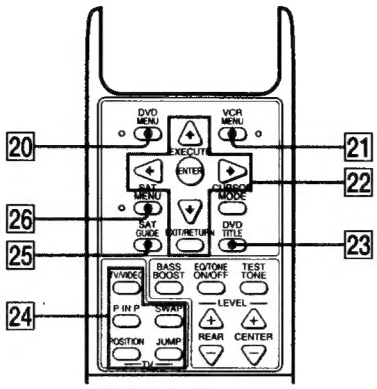
See the table on page 10 for information on the buttons that you can use to control each component.

17 CH/PRESET +/– buttons
Press repeatedly to select a preset station or channel.

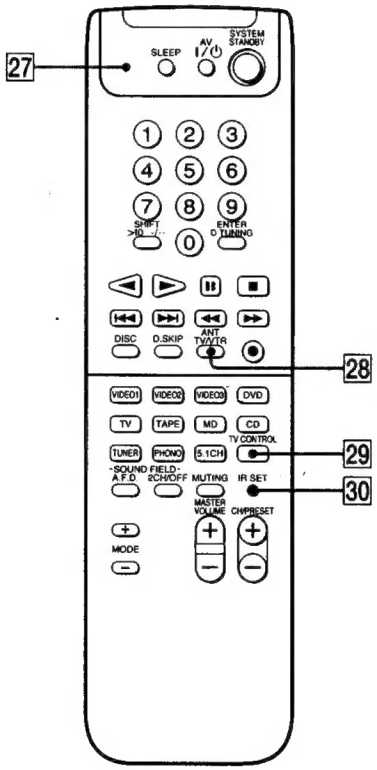
18 SOUND FIELD A.F.D. button
Press to set the receiver to automatically select the appropriate sound field for the input signal.
This button can be used only with receivers that have digital inputs.

SOUND FIELD 2CH/OFF button
Press to turn the sound field off and listen to 2 channel stereo sound.

19 MODE +/– buttons
Press to select sound fields.



Lift up the top cover.



20 DVD MENU button

Press to display the DVD menu. Then use the cursor buttons on the remote to perform the menu operations (see "22 Cursor buttons (↑/↓/←/→), ENTER button, and EXIT/RETURN button" on this page).

21 VCR MENU button

Press to display the VCR menu on the TV screen. Then use the cursor buttons on the remote to perform the menu operations (see "22 Cursor buttons (↑/↓/←/→), ENTER button, and EXIT/RETURN button" on this page).

Note

After you press the VCR MENU button, the remote is set to control the VCR that corresponds with VCR 1. Before pressing the button, make sure to set the VCR input mode to VCR 1.

22 Cursor buttons (↑/↓/←/→), ENTER button, and EXIT/RETURN button

After pressing the CURSOR MODE button or SET UP button on the receiver, use the cursor buttons to make specific settings (see page 6).

After pressing the VCR MENU, DVD MENU, DVD TITLE, SAT MENU, or SAT GUIDE button, use these buttons to perform the following operations:
Cursor buttons: To select a menu item
ENTER button: To enter the selection
EXIT/RETURN button: To return to the previous menu or exit the menu

Some of these buttons do not operate after a particular button is pressed. See the table below to find out which buttons operate after which button is pressed.

Operable buttons \ The button pressed first	CURSOR MODE	SAT MENU SAT GUIDE	VCR MENU	DVD MENU DVD TITLE
Cursor buttons	●	●	●	●
ENTER		●	●	●
EXIT/ RETURN		●		●

Note

Be sure to press the cursor buttons right after you press the VCR MENU, DVD MENU, DVD TITLE, SAT MENU, or SAT GUIDE button. The cursor buttons become inactive for menu operations when:

— They are not pressed within five seconds
— You close the top cover of the remote

In either cases, the cursor buttons revert back to receiver operations.

23 DVD TITLE button

Press to display the DVD title menu. Then use the cursor buttons on the remote to perform the menu operations (see "22 Cursor buttons (↑/↓/←/→), ENTER button, and EXIT/RETURN button" on page 8).

24 TV/VIDEO button

Press to change the input mode of the TV.

P IN P button

Press to activate the picture-in-picture function*.

SWAP button

Press to swap the small and large pictures*.

POSITION button

Press to change the position of the small picture*.

JUMP button

Press to toggle between the previous and the current channels.

* *Only with Sony TVs with the picture-in-picture function.*

25 SAT GUIDE button

Press to display the SAT guide. Then use the cursor buttons on the remote to perform the menu operations (see "22 Cursor buttons (↑/↓/←/→), ENTER button, and EXIT/RETURN button" on page 8).

26 SAT MENU button

Press to display the SAT menu. Then use the cursor buttons on the remote to perform the menu operations (see "22 Cursor buttons (↑/↓/←/→), ENTER button, and EXIT/RETURN button" on page 8).

27 Program indicator

Lights up whenever any button on the remote is pressed. Also lights up during programming (see page 13).

28 ANT TV/VTR button

Press repeatedly to select the signal to be output from the antenna terminal of the VCR (TV signal or video signal).

29 TV CONTROL button

If you are using a Sony TV, you can use this remote to operate the TV without turning on the receiver. When you press this button, the TV turns on and switches to TV input.

30 IR SET button

Use this button to program the remote with the signals to control non-Sony components (see page 13).

Table of buttons that you can use to control each component

Component / Button(s)	CD player	DAT deck	MD deck	Tape deck (A and B)	LD player	VCR (VHS, Beta, 8mm)	TV	Satellite tuner/ Cable box	Video CD player	DVD player
AV I/⏻	●		●		●	●	●	●	●	●
Numeric buttons	●	●	●	●	●	●	●	●	●	●
SHIFT >10 -/--	●		●	●	●	●	●		●	
ENTER D.TUNING	●		●	●	●	●	●	●		●
◄				●						
►	●	●	●	●	●	●			●	●
II	●	●	●	●	●	●			●	●
■	●	●	●	●	●	●			●	●
⏮ / ⏭	●	●	●		●	●			●	●
◄◄ / ►►	●	●	●	●	●	●			●	●
DISC	●*									
D.SKIP	●*									
ANT TV/VTR						●		●		
●		●	●	●						
● + ►		●		●		●				
● + ◄				●						

* *CD player with a multi-disc changer only.*

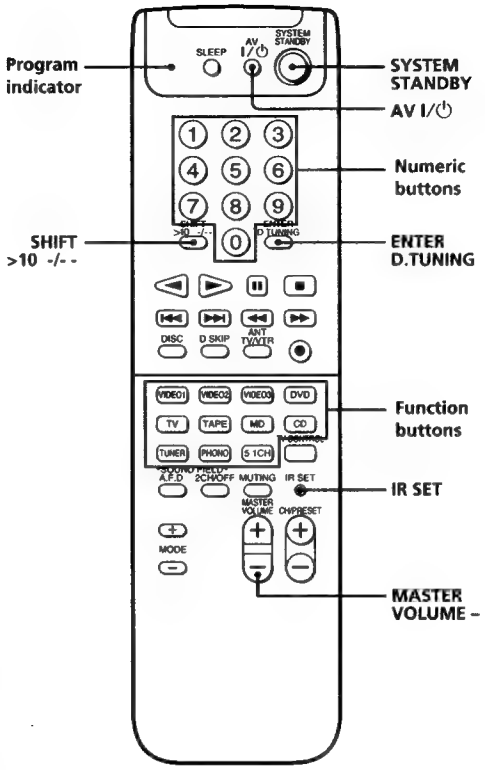
If you press the TV CONTROL button

The remote is set to operate only Sony TVs. In this case, only the following buttons are operable:

- TV/VIDEO button
- CH/PRESET +/– buttons
- MASTER VOLUME +/– buttons
- MUTING button

Advanced Remote Operations

This chapter describes how to change the factory setting of a function button and how to set the remote to control non-Sony components.



Brief descriptions of buttons used for advanced remote operations

Program indicator: Lights up during programming operations.

SYSTEM STANDBY:
- Press this switch together with the AV I/⏻ switch and MASTER VOLUME – button to reset all the function buttons to the factory settings or to clear the programmed signals.
- Press this switch together with the TUNER button to set SYSTEM STANDBY switch to turn only the receiver on or off. Press this switch together with the 5.1CH button to return the SYSTEM STANDBY switch to normal operation.

AV I/⏻: Press this switch together with the SYSTEM STANDBY switch and MASTER VOLUME – button to reset all the function buttons to the factory settings or to clear the programmed signals.

Numeric buttons: Used when changing the factory settings of the function buttons or specifying the make of the component that you want to control using the remote.

ENTER D.TUNING: Used when changing the factory settings of the function buttons or programming the remote.

Function buttons: Comes with factory settings that you can change.

IR SET: Press to program the remote.

MASTER VOLUME –: Press this button together with the SYSTEM STANDBY and AV I/⏻ switches to reset all the function buttons to the factory settings or to clear the programmed signals.

SHIFT >10 -/–: Used when changing the factory settings of the function buttons.

Changing the Factory Setting of a Function Button

You can change the factory settings of the function buttons (page 5) to suit the components in your system. For example, if you connect a Sony LD player to the VIDEO 2 jacks on the receiver, you can set the VIDEO2 button on this remote to control the LD player.

Note, however, that the settings of the TUNER and PHONO buttons cannot be changed.

1 Press down the button corresponding to the component you want to assign to a function button (button 6 for the LD player, for example).

Each button and its corresponding components are shown below.

Button	Component
1	CD player
2	DAT deck
3	MD deck
4	Tape deck A
5	Tape deck B
6	LD player
7	VCR (Beta)
8	VCR (8 mm)
9	VCR (VHS)
0	TV
SHIFT >10 -/–	Satellite tuner, cable box
ENTER D.TUNING	DVD player
D.SKIP	Video CD

2 While pressing down the button corresponding to the component, press down the function button whose setting is to be changed (the VIDEO2 button, for example).

The VIDEO2 button is now set to control the Sony LD player.

To reset a button to its factory setting
Repeat the procedure above.

To reset all function buttons to their factory settings
First press down MASTER VOLUME –, then AV I/⏻, and then SYSTEM STANDBY.

Operating Non-Sony Components

You can program the remote to control non-Sony components. Once the control signals have been memorized, you can use those components as part of your system.
Furthermore, you can also program this remote for Sony components that the remote is unable to control. Note that the remote can control the components that accept infrared wireless control signals only.

1 Do the procedure of "Changing the Factory Setting of a Function Button" on page 12, if necessary.

2 Press IR SET.
The program indicator lights up.

3 Press the function button for the component you want to control.
For example, if you are going to control a CD player, press CD.

4 Press the numeric buttons to enter the numeric code (or one of the codes if more than one code exist) corresponding to the component and the make of the component you want to control.
See the tables on pages 14 and 15 for information on the numeric code(s) corresponding to the component and the make of the component.

5 Press ENTER D.TUNING.
When the program indicator goes off, the component(s) can then be controlled using this remote.

6 Repeat Steps 2 to 5 to control other components.

If programming is unsuccessful, check the following:
- If the program indicator does not light up, the batteries are weak. Replace both batteries.
- If you do not do Step 3 within one minute after pressing the IR SET button in Step 2, the remote automatically exits learning mode. Start again from Step 2.

Notes
- The numeric codes are based on the latest information available for each brand. There is a chance, however, that your component will not respond to some or all of the codes.
- All of the functions on this remote may not be available when used with your particular component.

Clearing all programmed signals

To clear all the programmed signals, do the following procedure. The remote is reset to its factory-setting.

1 Press IR SET to turn on the program indicator.

2 First press down MASTER VOLUME –, then AV I/⏻, and then SYSTEM STANDBY until the program indicator flashes twice, then goes off.

The numeric codes corresponding to the component and the make of the component

Use the numeric codes in the tables below to control non-Sony conponents and also Sony components that the remote is normally unable to control. Since the remote signal that a component accepts differs depending on the model and year of the component, more than one numeric code may be assigned to a component. If you fail to program your remote using one of the codes, try using other codes.

Notes

- The numeric codes are based on the latest information available for each brand. There is a chance, however, that your component will not respond to some or all of the codes.
- All of the functions on this remote may not be available when used with your particular component.

To control a CD player

Make	Code(s)
DENON	03, 04
FISHER	05, 06
JVC	07, 08, 09
KENWOOD	10, 11, 12
MAGNAVOX	13, 18
MARANTZ	18
ONKYO	14, 15, 16
PANASONIC	17
PHILIPS	18
PIONEER	19
RCA	20, 21, 22
SONY	01, 02
TECHNICS	17, 23, 24
YAMAHA	25, 26, 27

To control a DAT deck

Make	Code(s)
PIONEER	02
SONY	01

To control an MD deck

Make	Code(s)
DENON	02
JVC	03
KENWOOD	04
SONY	01

To control a tape deck

Make	Code(s)
DENON	02
FISHER	03
JVC	04, 05
KENWOOD	06, 07
NAKAMICHI	08
PANASONIC	13
PHILIPS	09, 10
PIONEER	11
SONY	01
TECHNICS	12, 13
YAMAHA	14, 15

To control an LD player

Make	Code(s)
PANASONIC	05, 06, 07
PIONEER	08
SONY	01, 02, 03, 04

To control a VCR

Make	Code(s)
AIWA	04, 05, 10, 50
AKAI	06, 07, 08, 09
BLAUPUNKT	40
EMERSON	11, 12, 13, 14, 15, 16, 50
FISHER	17, 18, 19, 20
GENERAL ELECTRIC	21, 22, 30
GOLDSTAR	23, 53
GRUNDIG	24
HITACHI	22, 25, 29, 41
ITT/NOKIA	17
JVC	26, 27, 28, 36
MAGNAVOX	30, 31, 38
MITSUBISHI/MGA	32, 33, 34, 35
NEC	36
PANASONIC	29, 30, 37, 38, 39, 40
PHILIPS	29, 30, 31
PIONEER	29
RCA/PROSCAN	22, 29, 30, 31, 41, 47
SAMSUNG	42, 43, 44, 45
SANYO	17, 20, 46
SHARP	48, 49
SONY	01, 02, 03
TELEFUNKEN	51, 52
TOSHIBA	47
ZENITH	54

To control a DVD player

Make	Code(s)
PANASONIC	02
PIONEER	03
SONY	01
TOSHIBA	04

To control a TV

Make	Code(s)
DAEWOO	02, 04, 05, 06, 07, 15
FISHER	08
GOLDSTAR	02, 03, 11, 12, 15, 34
GRUNDIG	17, 34
HITACHI	02, 13, 14, 15
ITT/NOKIA	21, 22
JVC	16
MAGNAVOX	02, 03, 18
MITSUBISHI/MGA	02, 03, 19
NEC	02, 03, 20
PANASONIC	09, 24
PHILIPS	15, 18
PIONEER	09, 25, 26, 40
RCA/PROSCAN	02, 10, 27, 28, 29
SAMSUNG	02, 03, 15, 31, 32, 33, 34
SANYO	08
SHARP	35
SONY	01
TELEFUNKEN	23, 36, 37, 38
THOMSON	30, 37, 39
TOSHIBA	35, 40, 41
ZENITH	42, 43

To control a satellite tuner, or cable box

Make	Code(s)
JERROLD/G.I.	06, 07, 08, 09, 10, 11, 12, 13, 14
PANASONIC	03, 15, 16
PIONEER	17, 18
RCA	04, 05
SONY	01, 02
TOCOM	19, 20
ZENITH	21, 22

Additional Information

Troubleshooting

If you experience any of the following difficulties while using the receiver, use this troubleshooting guide to help you remedy the problem. Should any problem persist, consult your nearest Sony dealer.

The remote does not function.

- ➡ Point the remote at the remote sensor ■ on the receiver.
- ➡ Remove any obstacles in the path between the remote and the receiver.
- ➡ Replace both batteries in the remote with new ones, if they are weak.
- ➡ Make sure you select the correct function on the remote.
- ➡ Pressing the TV CONTROL button sets the remote to operate the TV only. If this mode is on, press a function button on the remote or one of the FUNCTION buttons on the receiver before operating the receiver or another component.

Specifications

General

Remote control system	Infrared control
Power requirements	3 V DC with two R6 (size-AA) batteries
Dimensions	210 × 56 × 26.8 mm (8 3/8 × 2 1/4 × 1 1/16 inches)
Mass (approx.)	125 g (4.4 oz) excluding batteries

Design and specifications are subject to change without notice.